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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,879	08/31/2001	Takahiro Nishiyama	P67087US0	9482

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WASHINGTON, DC 20004

EXAMINER

RHEE, JANE J

ART UNIT	PAPER NUMBER
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1772

4

DATE MAILED: 12/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/942,879

Applicant(s)

NISHIYAMA, TAKAHIRO

Examiner

Jane J Rhee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spurgat in view of Kitami et al (4881576).

Spurgat discloses a hose of multilayer wall comprising an innermost layer of rubber (col. 3 lines 64-65) and a gas impermeable metallic barrier layer formed in the wall surrounding the innermost layer (col. 3 lines 67-68, col. 4 lines 1-2). Spurgat discloses that the barrier layer is a metal laminated layer formed by having a metal foil held between two resins films (col. 4 lines 11-18). Spurgat discloses that the laminated layer is formed by at least a single fold of spiral winding or longitudinal lapping of a tape of a laminated sheet formed by having the foil held between the resin films (col. 4 lines 11-18 and figure 2 number 16a, and col. 4 lines 3-4). Spurgat discloses that the barrier layer is in contact with the innermost layer (col. 3 lines 64-68, col. 4 lines 1-2). Spurgat discloses that the barrier layer forms a part of the wall surrounding the innermost layer and is surrounded by a fiber-reinforced layer (col. 4 lines 35-37). Spurgat discloses that the multilayer wall sequentially comprises the innermost layer, the barrier layer, a fiber reinforced layer and an outer rubber layer (col. 4 lines 35-37).

Spurgat fail to disclose that the rubber material is cured by an agent not containing any metal oxide and/or sulfur. Spurgat fail to disclose that the rubber material is resistant to hot water and to acid and/or alkali. Spurgat fail to disclose that the rubber material or the hose as a whole has an electrical resistance of at least $10^6 \Omega$ cm. Spurgat fail to disclose that the material is selected from among ethylene-propylene-diene terpolymer rubber (EPDM), ethylene-propylene copolymer rubber (EPM), silicone-modified EPDM, silicone-modified EPM, fluororubber (FKM) and butyl rubber. Spurgat fail to disclose that the rubber material is EPDM or EPM cured by a peroxide without any zinc oxide. Spurgat fail to disclose that the multilayer wall comprises an intermediate butyl rubber layer. Spurgat fail to disclose that the foil has a thickness of 7 to 50um while the resin film has a thickness of 5 to 200um. Spurgat fail to disclose that the innermost layer and the barrier layer or every two adjoining layers are bonded to each other with an adhesive strength of at least 5kgf/inch.

Kitami et al. teaches that the rubber material is preferably made of NBR, CSM EPDM, CHR, CHC, IIR and C1-IIR for the purpose of having good balance of physical characteristics and sufficient flexibility (col. 2 lines 57,62-64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided Spurgat with rubber material made of NBR, CSM EPDM, CHR, CHC, IIR and C1-IIR in order to have good balance of physical characteristics and sufficient flexibility (col. 2 lines 57,62-64).

As to the rubber material being cured by an agent not containing any metal oxide and/or sulfur or that the rubber material is resistant to hot water and to acid and/or alkali

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and having an electrical resistance of at least $10^6 \Omega \text{ cm}$, since Kitami et al. teaches the same rubber material desired by the applicant, it is inherent that the rubber material is cured by an agent not containing any metal oxide and/or sulfur and that the rubber material is resistant to hot water and to acid and/or alkali and has an electrical resistance of at least $10^6 \Omega \text{ cm}$. Kitami et al. also teaches that the rubber material is used for the inner, intermediate, and outer layer of the hose (figure 1 number 22, 40 and figure 2 number 20a col. 2 lines 16-17) and since the rubber material is the same rubber material desired by the applicant and has the inherent property of an electrical resistance of at least $10^6 \Omega \text{ cm}$, it is also inherent that the hose as a whole has an electrical resistance of at least $10^6 \Omega \text{ cm}$.

Kitami et al. teaches that the multilayer wall comprises an intermediate butyl rubber layer (figure 1 number 22 and col. 2 line 60) for the purpose of providing a hose, which excels in impermeability to gas and to moisture, flexibility and mechanical strength (col. 1 lines 40-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided Spurgat with an intermediate butyl rubber layer in order to provided a hose which excels in impermeability to gas and to moisture, flexibility and mechanical strength (col. 1 lines 40-41) as taught by Kitami et al.

Spurgat discloses that the barrier layer is 0.001 to 0.003 inches thick (col. 4 line 15), it would have been obvious to one having ordinary skill in the art at the time the invention was made to obtain a foil with a thickness of 7 to 50um while the resin film has

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a thickness of 5 to 200um since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

Spurgat discloses that the heat activated adhesive bonds the barrier material together as a continuous high permeability layer within the resultant cured and formed hose (col. 4 lines 66-68, col. 5 line 1), it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to obtain an adhesive strength of at least 5kgf/inch, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

As to the claim wherein the rubber material is EPDM or EPM cured by a peroxide without any zinc oxide, process limitations are given little or no patentable weight. The method of forming the product is not germane to the issue of patentability of the product itself. Further, when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the Applicant to present evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. *In re Brown*, 459 F.2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974). This burden is NOT discharged solely because the product was derived from a process not known to the prior art. *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974). Furthermore, the determination of patentability for a product-by-process claim is based on the product itself and not on

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the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 946, 966 (Fed. Cir. 1985) and MPEP §2113. In this case, the limitation EPDM or EPM cured by a peroxide without any zinc oxide is a method of production and therefore does not determine the patentability of the product itself.

2. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spurgat in view of Kitami et al.

Spurgat and Kitami et al. discloses the multilayer hose described above. Spurgat fail to disclose that the hose has its wall treated with an extraction medium under heat aging conditions so that any matter to be dissolved therefrom may be removed by extraction therefrom prior to use of the hose. Spurgat fail to disclose that the wall has an inside diameter of 5 to 50 mm. Spurgat fail to disclose that the wall has a pair of ends each connected with a stainless steel pipe. Spurgat fail to disclose that wherein toward each end thereof, the wall has an inner surface treated for adhesion to the outer surface of the stainless steel pipe and the inner and outer surfaces are fasten by a sleeve.

As to the wall treated with an extraction medium under heat aging conditions so that any matter to be dissolved therefrom may be removed by extraction therefrom prior to use of the hose. process limitations are given little or no patentable weight. The method of forming the product is not germane to the issue of patentability of the product itself. Further, when the prior art discloses a product which reasonably appears to be

either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the Applicant to present evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. *In re Brown*, 459 F.2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974). This burden is NOT discharged solely because the product was derived from a process not known to the prior art. *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974). Furthermore, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 946, 966 (Fed. Cir. 1985) and MPEP §2113. In this case, the limitation, the wall treated with an extraction medium under heat aging conditions so that any matter to be dissolved therefrom may be removed by extraction therefrom prior to use of the hose is a method of production and therefore does not determine the patentability of the product itself.

As to the wall with an inside diameter of 5 to 50 mm, it would have been an obvious matter of design choice to have a hose with an inside diameter of 5-50mm, since such a modification would have involved a mere change in size of a component. A change of size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

As to the wall having a pair of ends connected with a stainless steel pipe and wherein toward each end thereof, the wall has an inner surface treated for adhesion to

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the outer surface of the stainless steel pipe and the inner and outer surface are fastened by a sleeve, it has been held that a recitation with respect to the manner in which the claimed article is intended to be employed does not differentiate the claimed article from the prior art article satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

Conclusion

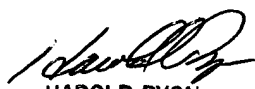
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane J Rhee whose telephone number is 703-605-4959. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Jane Rhee
December 13, 2002



HAROLD PYON
SUPERVISORY PATENT EXAMINER
1/12

12/16/02